

Vocabulary Cards and Word Walls

Revised: May 25, 2011

Important Notes for Teachers:

- The vocabulary cards in this file match the Common Core, the math curriculum adopted by the Utah State Board of Education, August 2010.
- The cards are arranged alphabetically.
- Each card has three sections.
 - Section 1 is only the word. This is to be used as a visual aid in spelling and pronunciation. It is also used when students are writing their own “kid-friendly” definition and drawing their own graphic.
 - Section 2 has the word and a graphic. This graphic is available to be used as a model by the teacher.
 - Section 3 has the word, a graphic, and a definition. This is to be used for the Word Wall in the classroom. For more information on using a Word Wall for Daily Review – see “Vocabulary – Word Wall Ideas” on this website.
- These cards are designed to help all students with math content vocabulary, including ELL, Gifted and Talented, Special Education, and Regular Education students.

For possible additions or corrections to the vocabulary cards, please contact the Granite School District Math Department at 385-646-4239.

Bibliography of Definition Sources:

Algebra to Go, Great Source, 2000. ISBN 0-669-46151-8

Math on Call, Great Source, 2004. ISBN-13: 978-0-669-50819-2

Math at Hand, Great Source, 1999. ISBN 0-669-46922

Math to Know, Great Source, 2000. ISBN 0-669-47153-4

Illustrated Dictionary of Math, Usborne Publishing Ltd., 2003. ISBN 0-7945-0662-3

Math Dictionary, Eula Ewing Monroe, Boyds Mills Press, 2006. ISBN-13: 978-1-59078-413-6

Student Reference Books, Everyday Mathematics, 2007.

Houghton-Mifflin eGlossary, <http://www.eduplace.com>

Interactive Math Dictionary, <http://www.amathsdictionaryforkids.com/>

absolute value

**absolute
value**

$$|-5| = 5$$

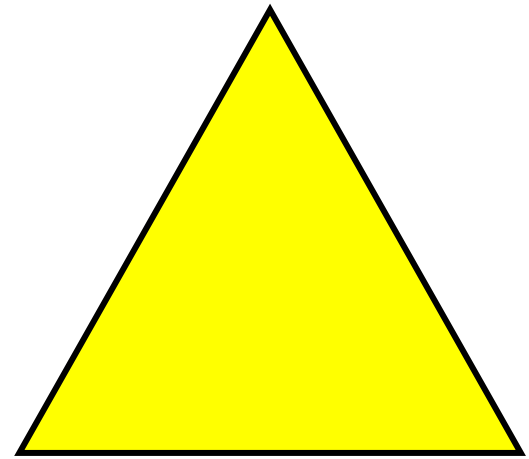
**absolute
value**

$$|-5| = 5$$

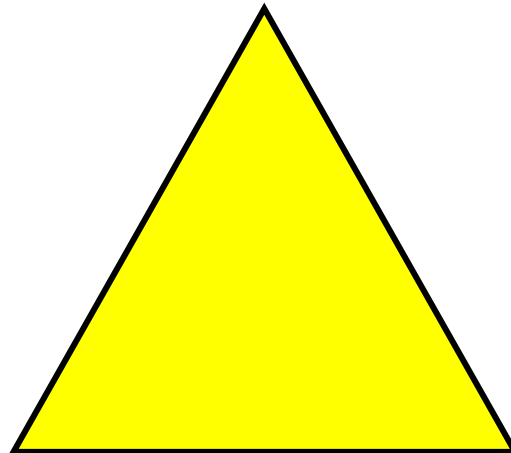
The distance of a number from zero on the number line. Always positive.

acute triangle

acute
triangle



acute
triangle



A triangle with no angle
measuring 90° or more.

addend

addend

$$33 + 4.7 + 0.9 = 38.6$$

addends

addend

$$33 + 4.7 + 0.9 = 38.6$$

addends

Any number being added.

Additive Identity Property of 0

Additive Identity
Property of 0

$$a + 0 = a$$

Additive Identity
Property of 0

$$a + 0 = a$$

Adding zero to a number
gives a sum identical to
the given number.

additive inverses

additive inverses $5 + (-5) = 0$

additive inverses $5 + (-5) = 0$

Two numbers whose sum is 0 are additive inverses of one another.

algebraic expression

**algebraic
expression**

$$3x + 2$$

**algebraic
expression**

$$3x + 2$$

A group of numbers, symbols, and variables that express an operation or a series of operations.

algorithm

algorithm

Partial Product Example

555	
<u>x 7</u>	
35	Step 1: Multiply the ones.
350	Step 2: Multiply the tens.
<u>3500</u>	Step 3: Multiply the hundreds.
3885	Step 4: Add the partial products.

Partial Product Example

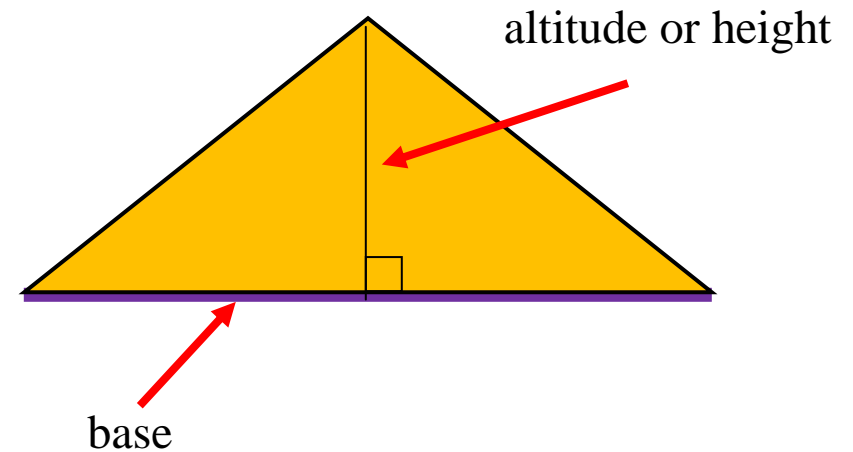
algorithm

555	
<u>x 7</u>	
35	Step 1: Multiply the ones.
350	Step 2: Multiply the tens.
<u>3500</u>	Step 3: Multiply the hundreds.
3885	Step 4: Add the partial products.

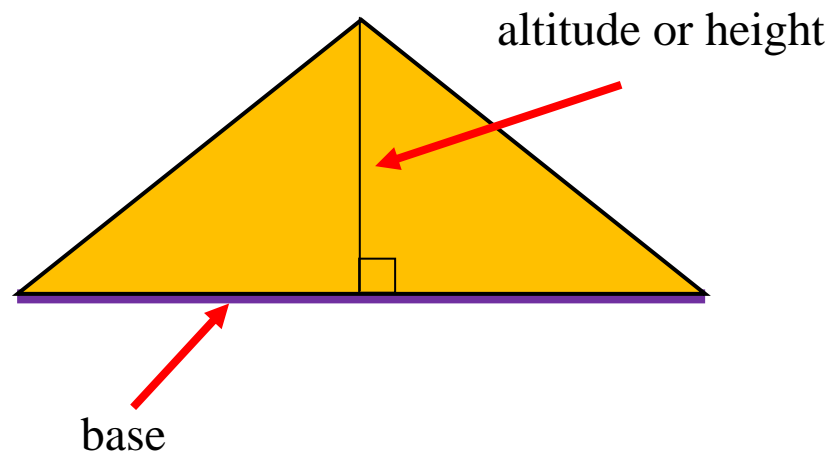
A step-by-step method
for computing.

altitude

altitude



altitude



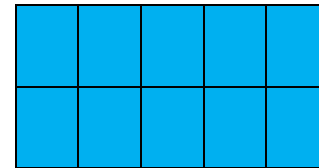
The perpendicular distance from a vertex to the opposite side of a plane figure.

area

area

2 rows of 5 = 10 square units
or

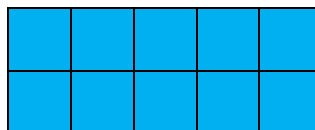
$2 \times 5 = 10$ square units



area

2 rows of 5 = 10 square units
or

$2 \times 5 = 10$ square units



The measure, in square units,
of the interior region of a
2-dimensional figure or the
surface of a
3-dimensional figure.

Associative Property of Addition

Associative Property of Addition

$$\begin{aligned}(5 + 7) + 3 &= 5 + (7 + 3) \\ 12 + 3 &= 5 + 10 \\ 15 &= 15\end{aligned}$$

Associative Property of Addition

$$\begin{aligned}(5 + 7) + 3 &= 5 + (7 + 3) \\ 12 + 3 &= 5 + 10 \\ 15 &= 15\end{aligned}$$

The sum stays the same when the grouping of addends is changed.
 $(a + b) + c = a + (b + c)$,
where a , b , and c stand for any real numbers.

Associative Property of Multiplication

Associative Property of Multiplication

$$\begin{aligned}(5 \times 7) \times 3 &= 5 \times (7 \times 3) \\ 35 \times 3 &= 5 \times 21 \\ 105 &= 105\end{aligned}$$

Associative Property of Multiplication

$$\begin{aligned}(5 \times 7) \times 3 &= 5 \times (7 \times 3) \\ 35 \times 3 &= 5 \times 21 \\ 105 &= 105\end{aligned}$$

The product stays the same when the grouping of factors is changed. $(a \times b) \times c = a \times (b \times c)$, where a , b , and c stand for any real numbers.

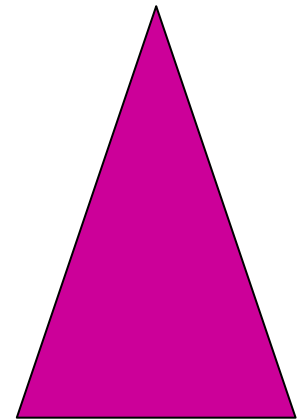
attribute

attribute

large

triangle

pink

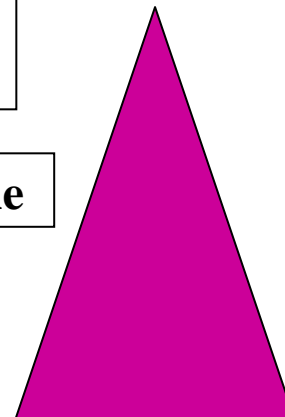


attribute

large

triangle

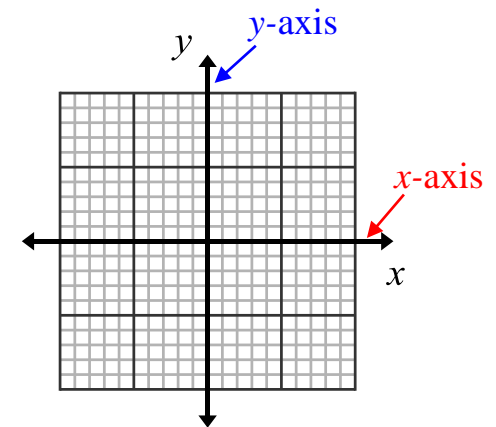
pink



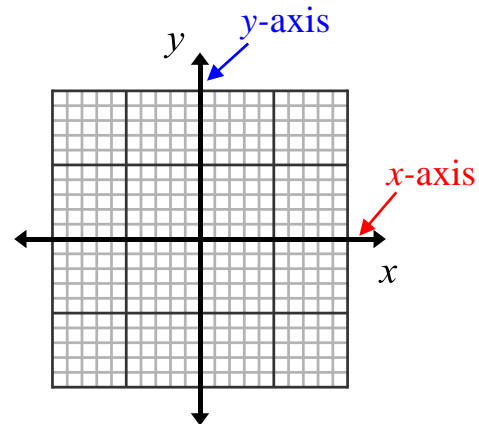
A characteristic.
e.g. size, shape or
color

axis

axis



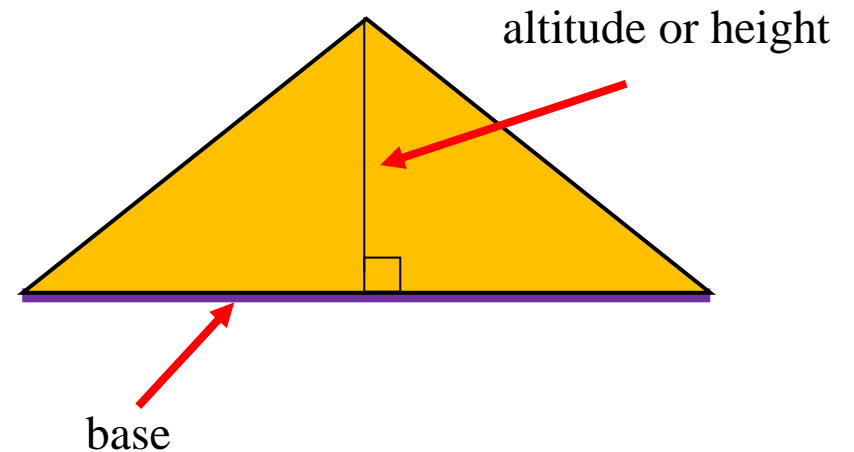
axis



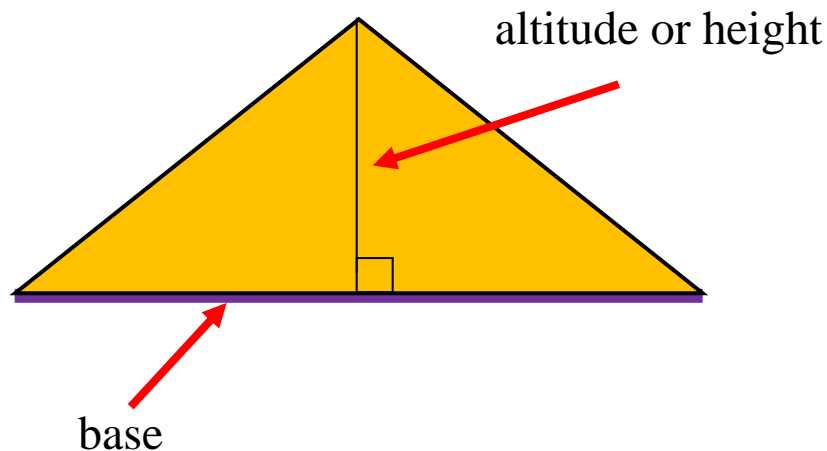
A reference line from which distances or angles are measured in a coordinate grid.
(plural – axes)

base of a polygon

base of a polygon



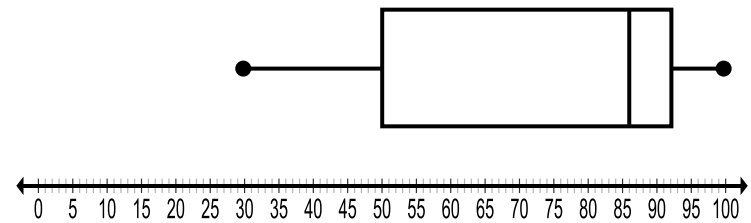
base of a polygon



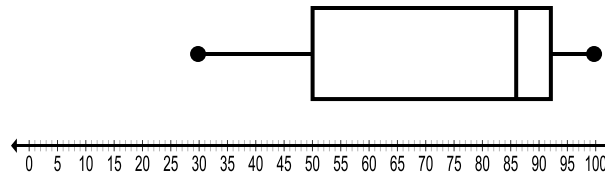
The side of a polygon that is perpendicular to the altitude or height.

box plot

box plot



box plot

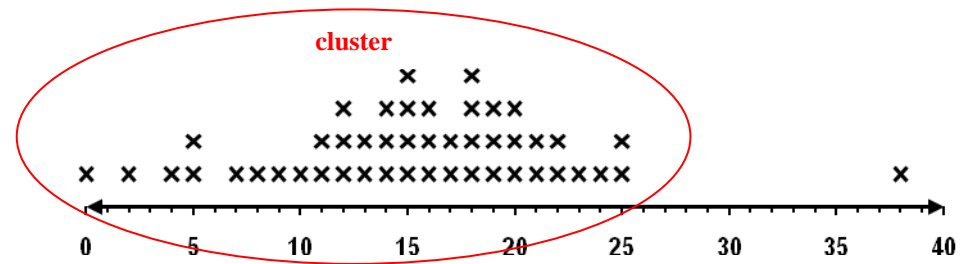


A diagram that shows the five number summary of a distribution. (Five number summary includes lowest value, lower quartile, median, upper quartile, and highest value.)

cluster

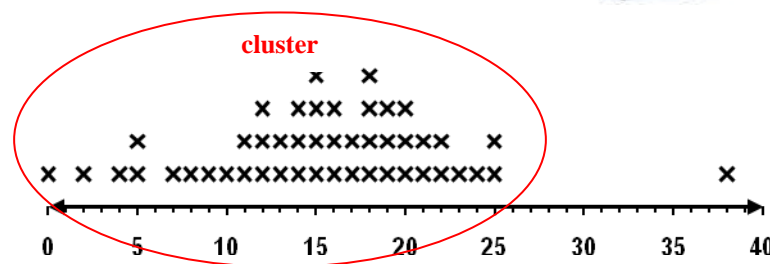
cluster

Hours Watching TV In One Week



cluster

Hours Watching TV In One Week




A group of the same or similar elements gathered or occurring closely together on a graph.

coefficient

coefficient $5x + 3$

 coefficient

coefficient $5x + 3$

 coefficient

A numerical factor in a term
of an algebraic expression.

common denominator

**common
denominator**

12 is a common
denominator for

$$\frac{2}{3} \text{ and } \frac{3}{4}$$

**common
denominator**

12 is a common
denominator for

$$\frac{2}{3} \text{ and } \frac{3}{4}$$

For two or more fractions, a common denominator is a common multiple of the denominators.

common factor

**common
factor**

12 (1, 2, 3, 4, 6, 12)

18 (1, 2, 3, 6, 9, 18)

Common Factors of 12 and 18:

1, 2, 3, 6

**common
factor**

12 (1, 2, 3, 4, 6, 12)

18 (1, 2, 3, 6, 9, 18)

Common Factors of 12 and 18:

1, 2, 3, 6

Any common factor of
two or more numbers.

common multiple

common
multiple

4, 8, 12, 16, 20, 24, 28, 32, 36...
6, 12, 18, 24, 30, 36, 42...

Common Multiples of 4 and 6:
12, 24, 36...

common
multiple

4, 8, 12, 16, 20, 24, 28, 32, 36...
6, 12, 18, 24, 30, 36, 42...

Common Multiples of 4 and 6:
12, 24, 36...

Any common multiple of
two or more numbers.

Commutative Property of Addition

Commutative Property
of Addition

$$5 + 3 = 3 + 5$$

Commutative
Property of
Addition

$$5 + 3 = 3 + 5$$

The sum stays the same
when the order of the
addends is changed.
 $a + b = b + a$, where a
and b are any real
numbers.

Commutative Property of Multiplication

**Commutative
Property of
Multiplication**

$$4 \times 7 = 7 \times 4$$

**Commutative
Property of
Multiplication**

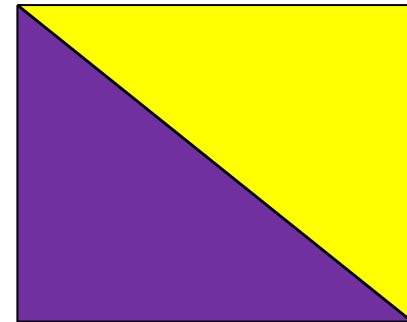
$$4 \times 7 = 7 \times 4$$

The product stays the same when the order of the factors is changed.
 $a \times b = b \times a$, where a and b are any real numbers.

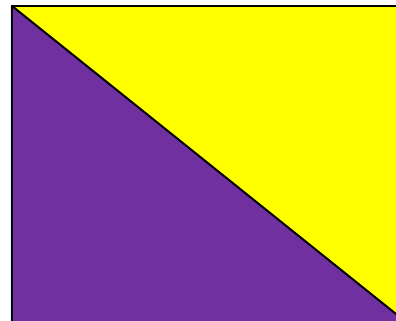
compose

2 triangles can form a rectangle.

compose



2 triangles can form a
rectangle.



compose

To put together, as in
numbers or shapes.

constant

constant

$$5x + 4$$

constant



constant

$$5x + 4$$

constant



A number with a value that is always the same.

constant speed

constant speed



constant speed



Movement at a fixed
(constant) distance per
unit of time.

coordinate pair

coordinate
pair

$(-5, 2)$
 (x, y)

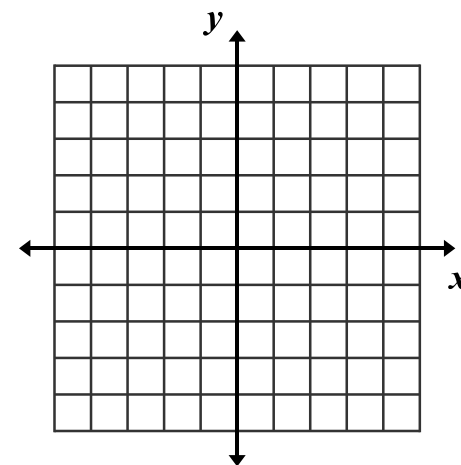
coordinate
pair

$(-5, 2)$
 (x, y)

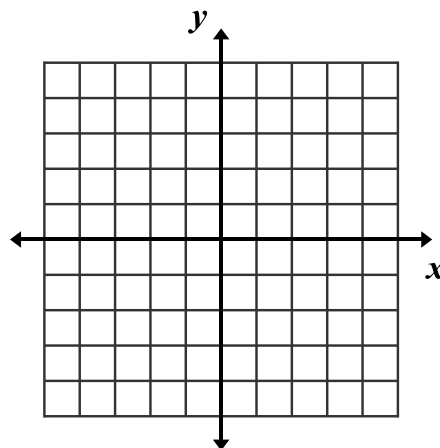
A pair of numbers that gives the coordinates of a point on a grid in this order (horizontal coordinate, vertical coordinate). Also known as an ordered pair.

coordinate plane

coordinate
plane



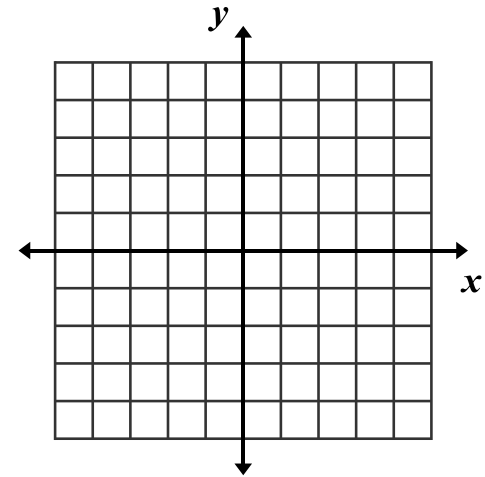
coordinate
plane



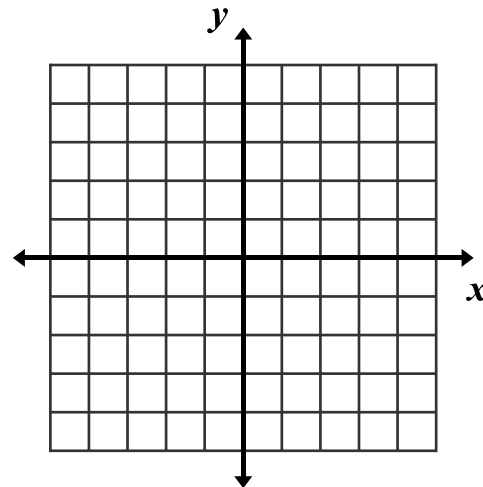
A 2-dimensional system in which the coordinates of a point are its distances from two intersecting, usually perpendicular, straight lines called axes. (Also called *coordinate grid* or *coordinate system*.)

coordinate system

coordinate
system



coordinate
system



Also known as a coordinate grid. A 2-dimensional system in which the coordinates of a point are its distances from two intersecting, usually perpendicular, straight lines called axes.

coordinates

coordinates

(3,-5)
(x , y)

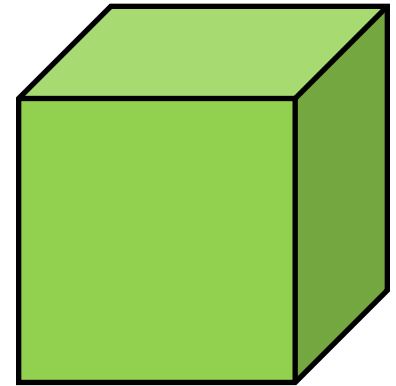
coordinates

(3,-5)
(x , y)

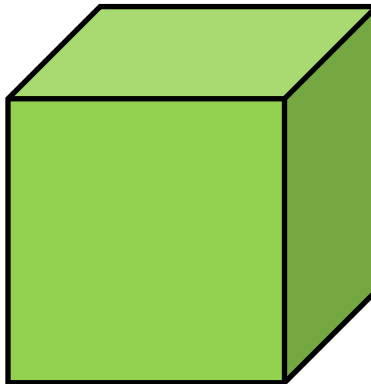
An ordered pair of numbers that identify a point on a coordinate plane.

cube

cube



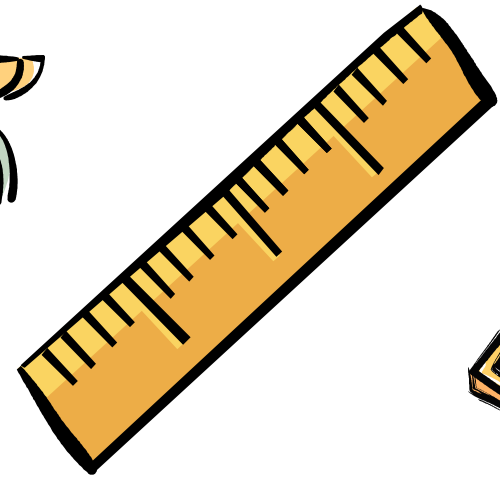
cube



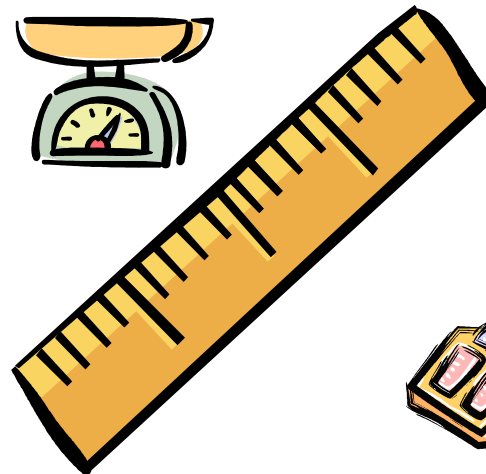
A rectangular solid
having six congruent
square faces.

customary system

customary
system




customary
system



A system of measurement used in the U.S. The system includes units for measuring length, capacity, and weight.


data

data



Number of School Carnival Tickets Sold	
Kindergarten	22
1 st Grade	15
2 nd Grade	34
3 rd Grade	9
4 th Grade	16
5 th Grade	29
6 th Grade	11

data

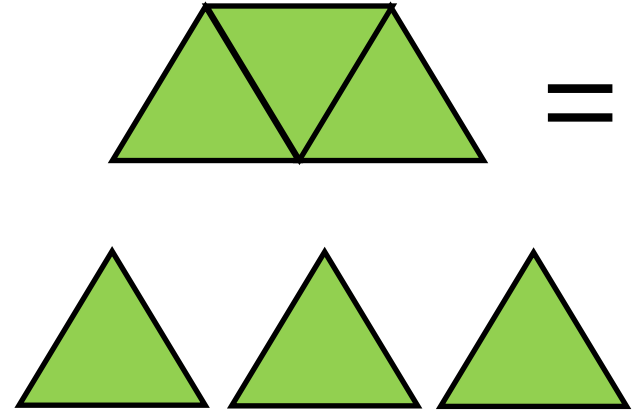


Number of School Carnival Tickets Sold	
Kindergarten	22
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4 th Grade	16
5 th Grade	29
6 th Grade	11

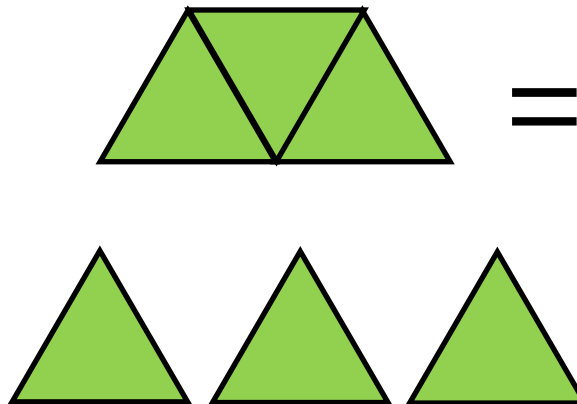
Information, especially numerical information.
Usually organized for analysis.

decompose

decompose



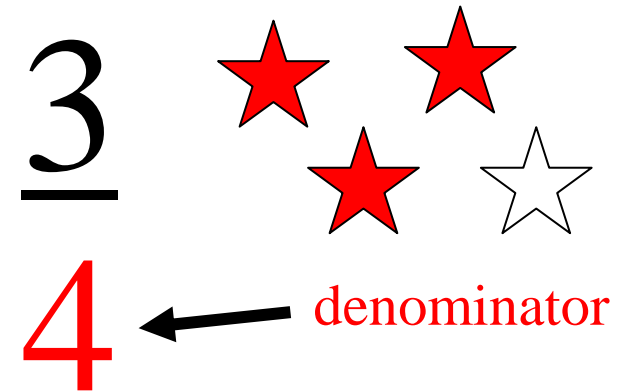
decompose



To separate into
components or basic
elements.

denominator

denominator



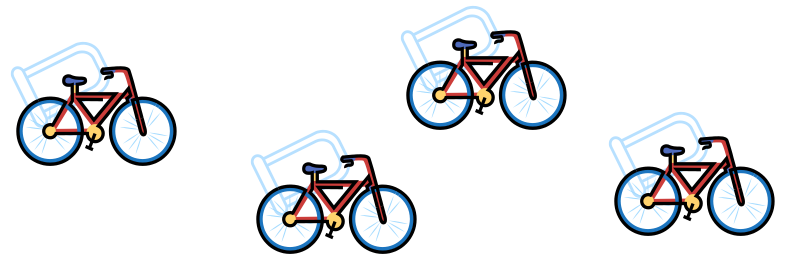
denominator



The quantity below the line in a fraction. It tells the number of equal parts into which a whole is divided.

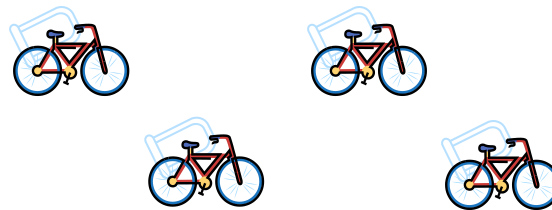
dependent variable

dependent
variable



# Bikes	1	2	3	4
Wheels	2	4	6	8

dependent
variable



# Bikes	1	2	3	4
Wheels	2	4	6	8

In a function, a variable whose value is determined by the value of the related independent variable.

difference

difference

$$49.75 - 13.9 = 35.85$$

difference

difference

$$49.75 - 13.9 = 35.85$$

difference

The amount that remains after one quantity is subtracted from another.

distribution

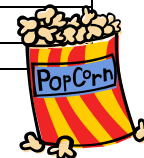
distribution

Age of People Attending a Movie		
Age Ranges	Tally	Frequency
0 - 9	III	3
10 - 19	IIII	4
20 - 29	IIII I	6
30 - 39	IIII III	8
40 - 49		0
50 - 59	—	1
60-69	—H	2



distribution

Age of People Attending a Movie		
Age Ranges	Tally	Frequency
0 - 9	III	3
10 - 19	IIII	4
20 - 29	IIII I	6
30 - 39	IIII III	8
40 - 49		0
50 - 59	—	1
60-69	—H	2



A table that shows
how many there
are of each type of
data.

Distributive Property

Distributive Property

Example:

$$5(6 + 8) = (5 \times 6) + (5 \times 8)$$

Distributive Property

Example:

$$5(6 + 8) = (5 \times 6) + (5 \times 8)$$

$$a \times (b + c) = (a \times b) + (a \times c)$$

and

$$a \times (b - c) = (a \times b) - (a \times c),$$

where a , b , and c stand for any real numbers.

dividend

dividend

$8 \overline{) 578}$
dividend

dividend

$8 \overline{) 578}$
dividend

A quantity to be
divided.

divisor

divisor

$8 \overline{) 578}$
↑
divisor

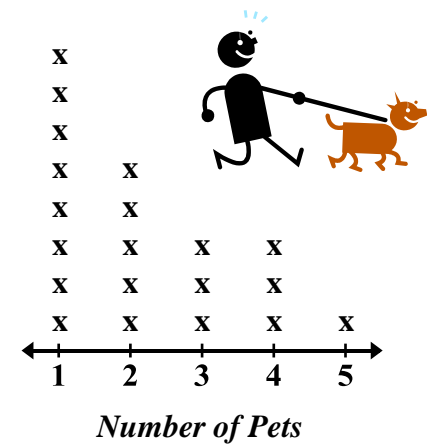
divisor

$8 \overline{) 578}$
↑
divisor

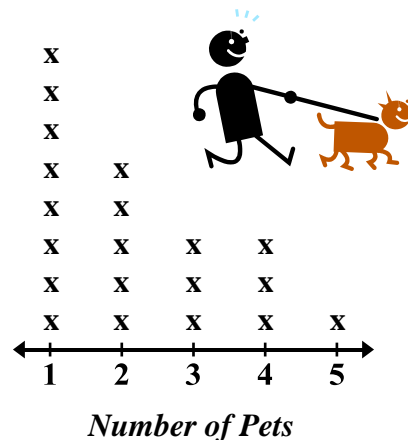
The quantity by which
another quantity is to be
divided.

dot plot

dot plot



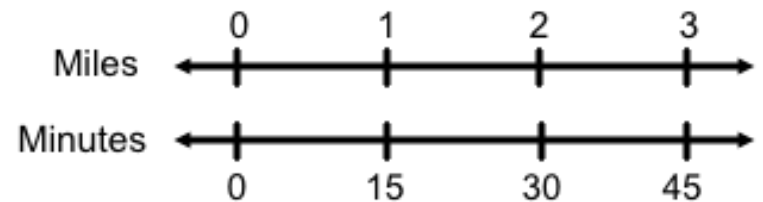
dot plot



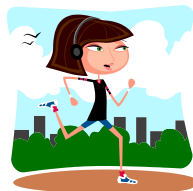
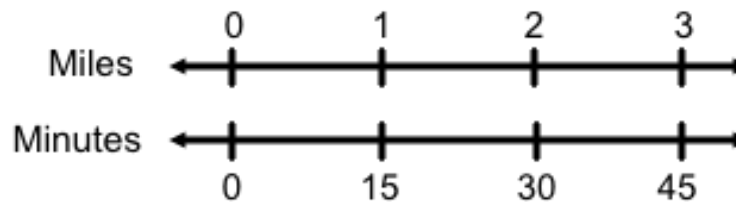
Also known as a line plot. A diagram showing frequency of data on a number line.

double number line diagram

double number line diagram



double number line diagram



A graphic diagram that shows a proportional relationship between two quantities.

equation

equation

$$9 \times 3 = 20 + 7$$

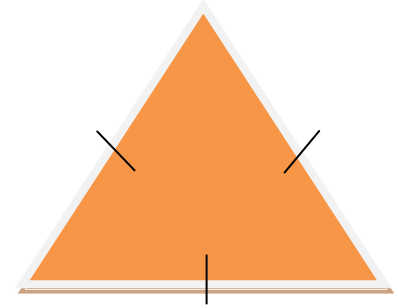
equation

$$9 \times 3 = 20 + 7$$

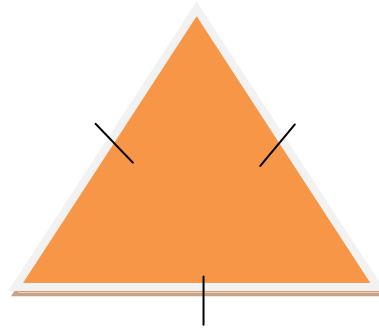
A statement that two
mathematical
expressions are equal.

equilateral triangle

equilateral triangle



equilateral triangle



A triangle whose sides
are all the same length.

equivalent

$$9 + 12 = 1 + 20$$

equivalent



$$9 + 12 = 1 + 20$$

equivalent



Naming the same
number.

equivalent ratio

equivalent
ratio

$$\frac{6}{12} = \frac{2}{4}$$

Both ratios simplify to $\frac{1}{2}$.

equivalent
ratio

$$\frac{6}{12} = \frac{2}{4}$$

Both ratios simplify to $\frac{1}{2}$.

If two ratios have the same value when simplified, then they are called equivalent ratios.

evaluate

$$42 - 13 = n$$

evaluate

$$n = 29$$

$$42 - 13 = n$$

evaluate

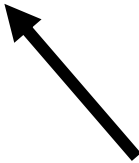
$$n = 29$$

To find the value of
a mathematical
expression.

exponent

exponent

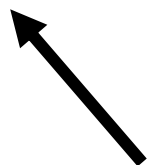
5^2



exponent

exponent

5^2



exponent

The number that tells
how many equal
factors there are.

expression

expression

$$5x + 3$$

expression

$$5x + 3$$

A variable or combination of variables, numbers, and symbols that represents a mathematical relationship.

factor

factor

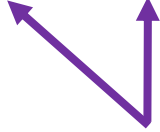
$$2 \times 6 = 12$$


Diagram illustrating factors: Two purple arrows point from the word "factors" below to the numbers 2 and 6 in the equation above.

factors

factor

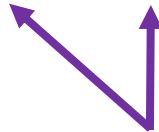
$$2 \times 6 = 12$$


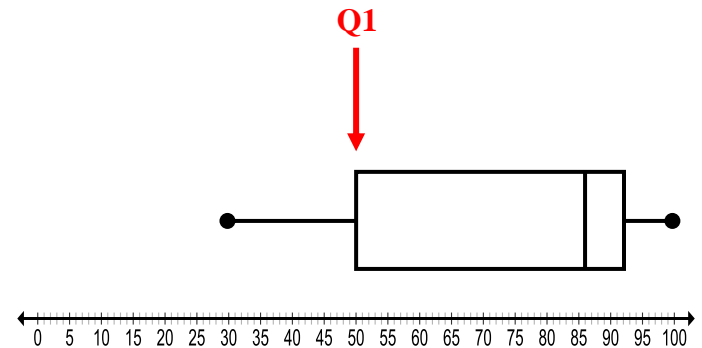
Diagram illustrating factors: Two purple arrows point from the word "factors" below to the numbers 2 and 6 in the equation above.

factors

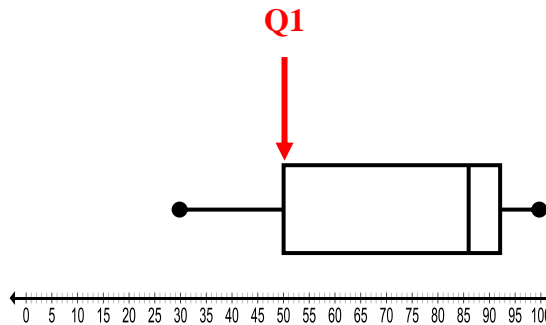
An integer that
divides evenly into
another.

first quartile

first quartile



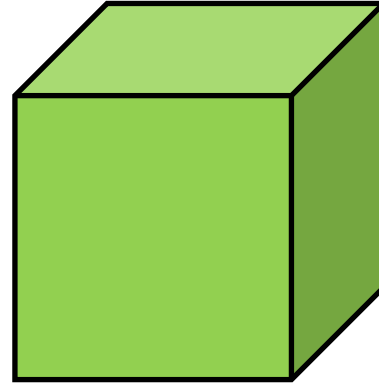
first quartile



The first quartile is the middle (the median) of the lower half of the data on a box plot. One-fourth of the data lies below the first quartile and three-fourths lies above. Also known as Q1.

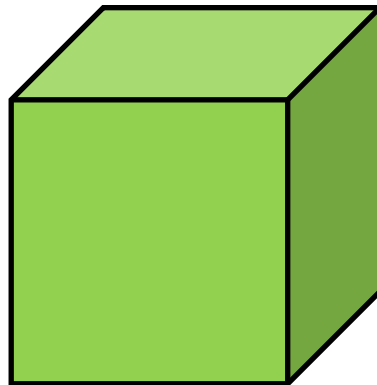
formula

formula



Volume
of a
cube is
 $V = 6s^2$

formula



Volume
of a
cube is
 $V = 6s^2$

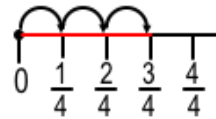
A general
mathematical
statement or
rule.

fraction

fraction

What is $\frac{3}{4}$?

Measurement Model

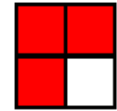


Bar Diagram
(thickened number line)

Set Model

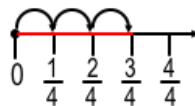


Regional/Array Model



What is $\frac{3}{4}$?

Measurement Model



Bar Diagram
(thickened number line)

Set Model



Regional/Array Model



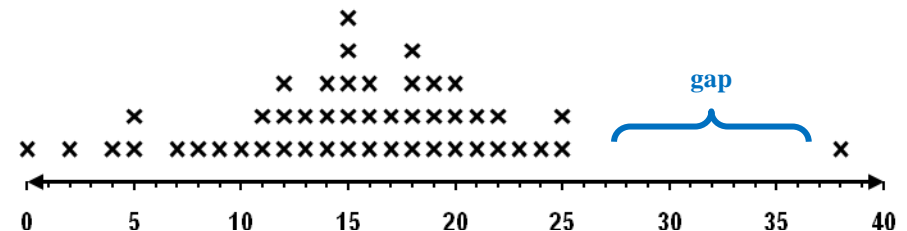
A way of representing part of a whole or part of a group by telling the number of equal parts in the whole and the number of parts you are describing.

fraction

gap

gap

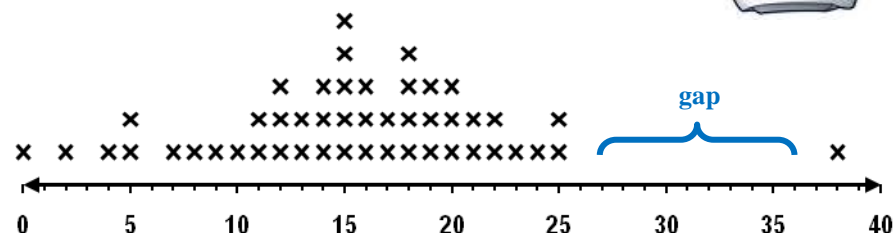
Hours Watching TV In One Week



Hours Watching TV In One Week



gap

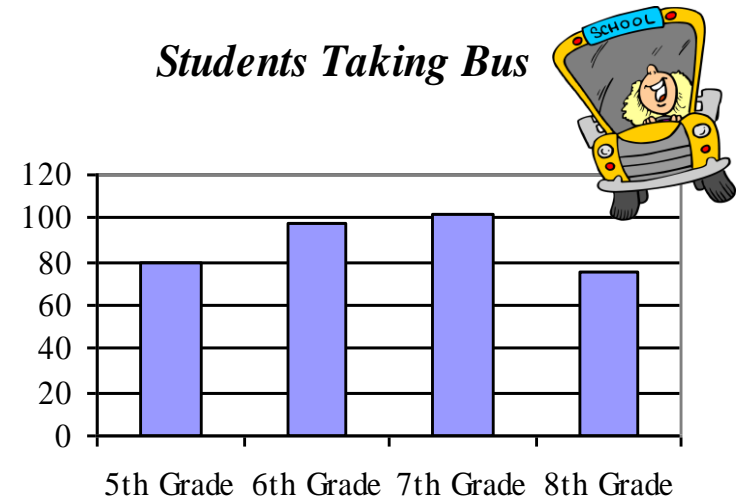


A place on a graph where no data values are present.

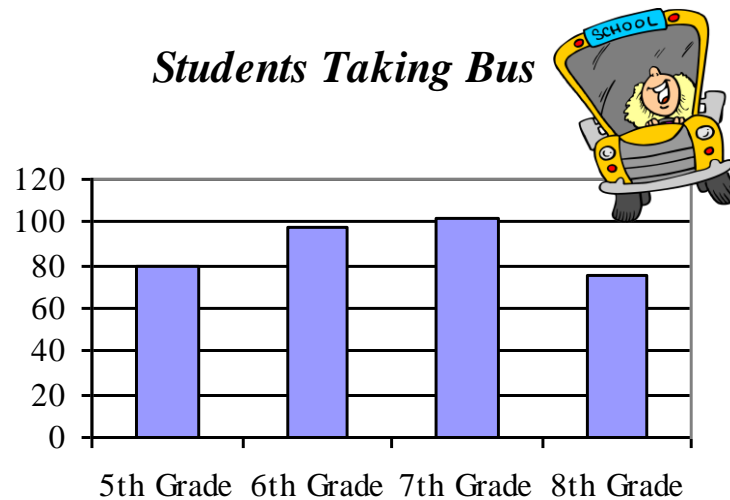
graph

graph

Students Taking Bus



Students Taking Bus



A pictorial device
used to show a
numerical
relationship.

graph

greater than

greater
than



$$5 > 3$$

greater
than



$$5 > 3$$

Greater than is used to compare two numbers when the first number is larger than the second number.

greatest common factor

greatest common factor

12 (1, 2, 3, 4, **6**, 12)
18 (1, 2, 3, **6**, 9, 18)

GCF = **6**

greatest common factor

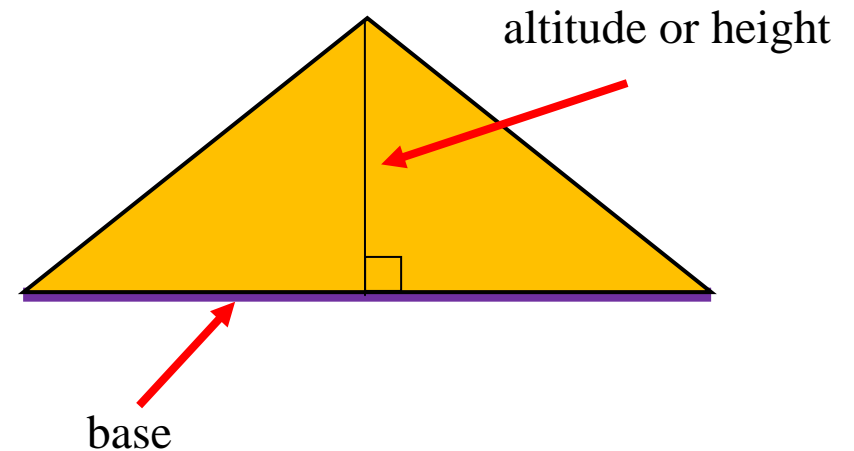
12 (1, 2, 3, 4, **6**, 12)
18 (1, 2, 3, **6**, 9, 18)

GCF = **6**

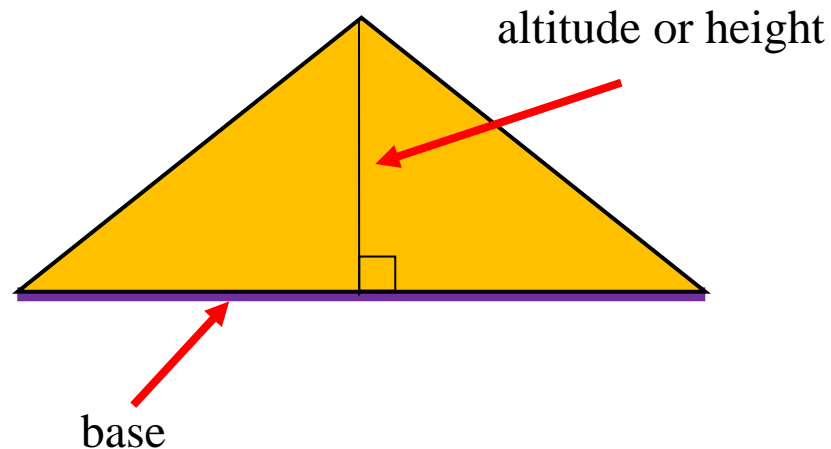
GCF. The largest factor of two or more numbers.

height

height



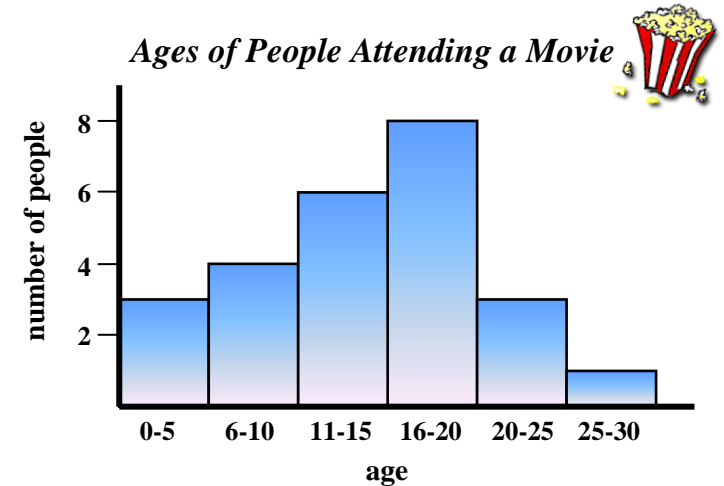
height



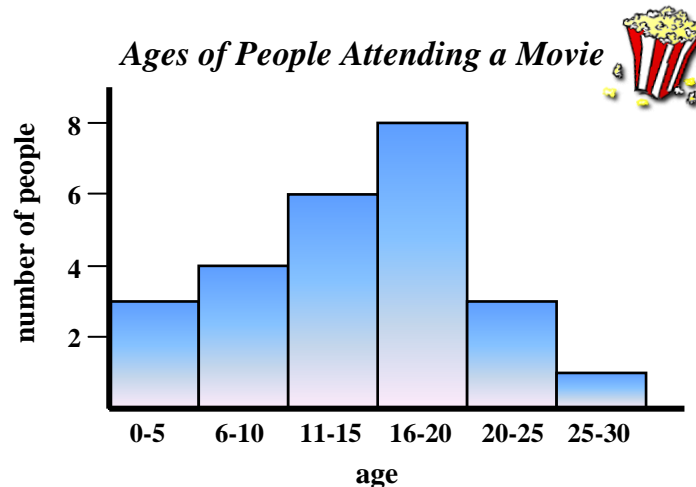
The perpendicular distance from a vertex to the opposite side of a plane figure.

histogram

histogram



histogram



A bar graph in which
the labels for the bars
are numerical
intervals.

improper fraction

improper
fraction

$$\frac{5}{3}$$

The
numerator is
greater than
the
denominator.

improper
fraction

$$\frac{5}{3}$$

The
numerator is
greater than
the
denominator.

A fraction with
a numerator
greater than (or
equal to) its
denominator.

independent variable

independent variable



# Bikes	1	2	3	4
Wheels	2	4	6	8

independent variable



# Bikes	1	2	3	4
Wheels	2	4	6	8

A variable in a mathematical equation whose value determines that of a dependent variable.

inequality

$$5x + 6 < 20 - 2x$$

inequality



$$5x + 6 < 20 - 2x$$

inequality



A mathematical sentence that compares two unequal expressions using one of the symbols $<$, $>$, \leq , \geq , or \neq .

infinite

infinite



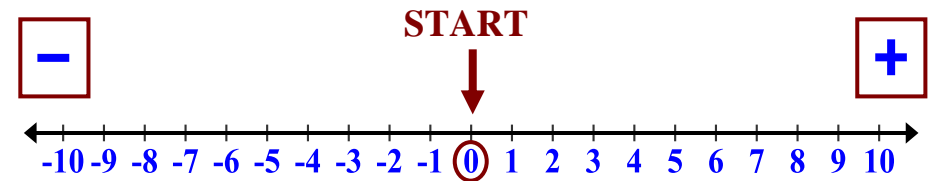
infinite



Having no
boundaries or limits.

integers

integers



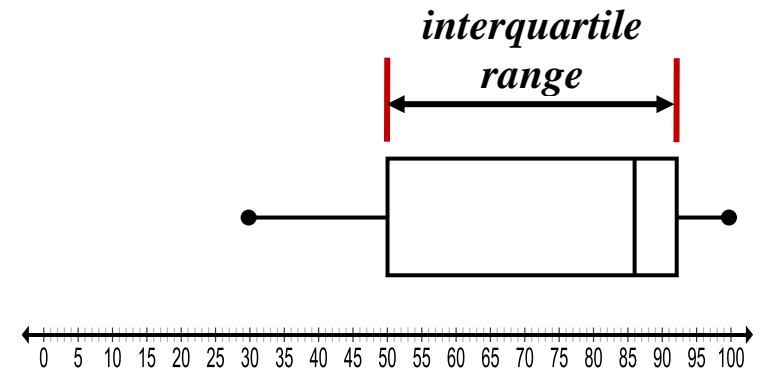
integers



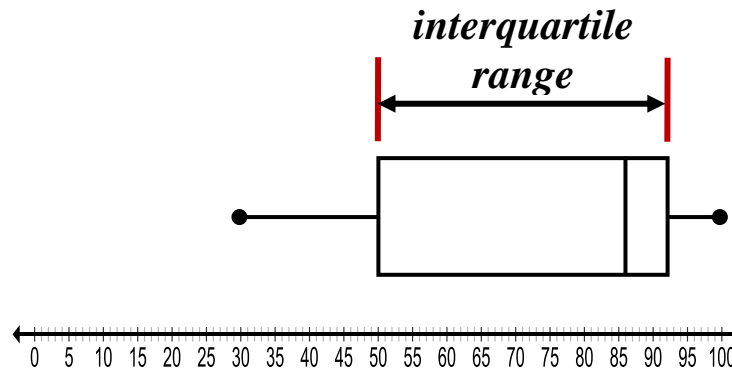
The set of whole
numbers and
their opposites.

interquartile range

interquartile
range



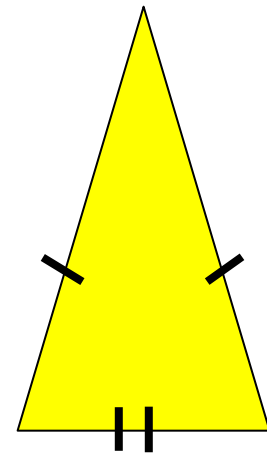
interquartile
range



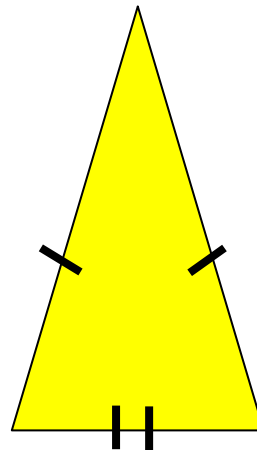
The difference
between the upper
quartile and the
lower quartile.

isosceles triangle

isosceles
triangle



isosceles
triangle



A triangle that has at
least two congruent
sides.

least common multiple

least common
multiple

6, 12, 18, **24**, 30, 36, 42...
8, 16, **24**, 32, 40, 48, 56...

LCM = **24**

least
common
multiple

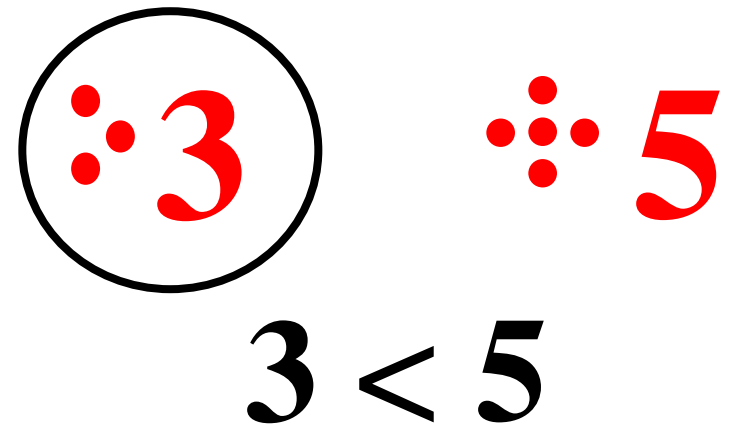
6, 12, 18, **24**, 30, 36, 42...
8, 16, **24**, 32, 40, 48, 56...

LCM = **24**

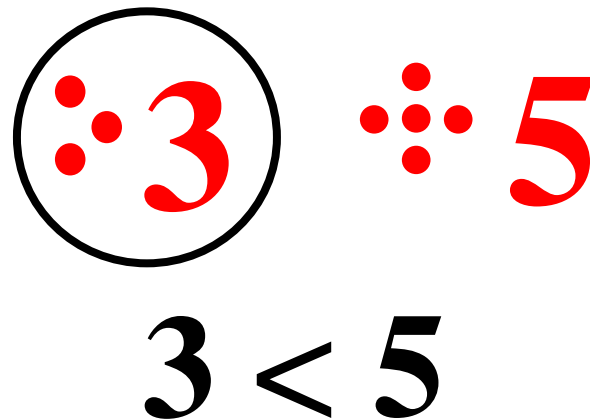
LCM. The smallest
common multiple of
a set of two or more
numbers.

less than

less than



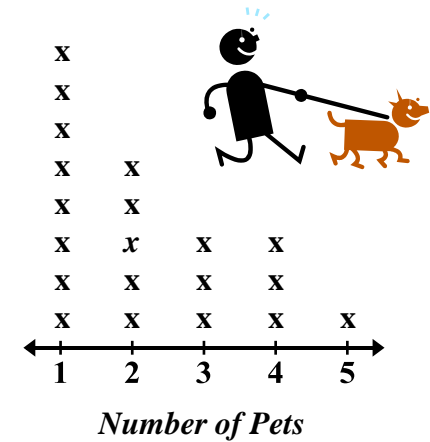
less than



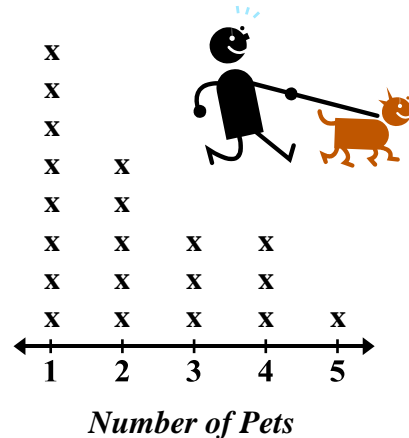
Less than is used to compare two numbers when the first number is smaller than the second number.

line plot

line plot



line plot

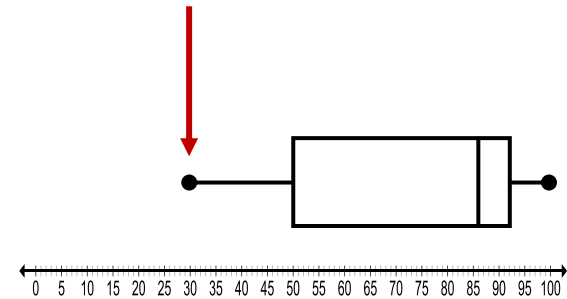


Also known as a dot plot.
A diagram showing
frequency of data on a
number line.

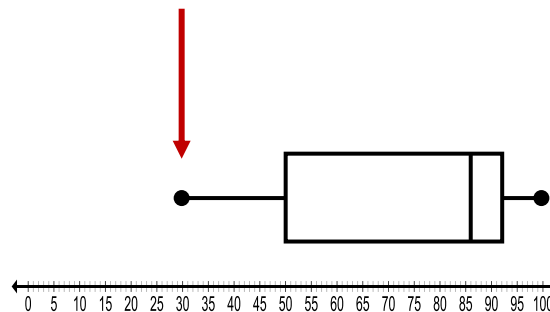
lower extreme

lower extreme

lower extreme



lower extreme



The smallest or least number out of a data set, usually farther away from interquartile range than other data in set. (Also known as minimum.)

lower extreme

